



**ORIGINAL RESEARCH PAPER**

**Obstetrics & Gynaecology**

**A PROSPECTIVE OBSERVATIONAL STUDY ON EFFECT OF MULLERIAN ANOMALIES ON PREGNANCY.**

**KEY WORDS:**

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**ABSTRACT**

**INTRODUCTION** Normal development of female reproductive tract involves a series of complex process characterized by the differentiation , migration , fusion & subsequent canalization of mullerian system (1). The paramesonephric or mullerian ducts form lateral to mesonephric ducts( 2.). They are formed by invagination of coelomic epithelium 3. The paramesonephric duct system subsequently develops. The inferior fused portion becomes uterovaginal canal , which later becomes epithelium & glands of uterus & upper vagina .The endometrial stroma & myometrium differentiate from surrounding mesenchyme. The cranial unfused portions of paramesonephric ducts become fallopian tube (2). The paramesonephric or mullerian ducts form lateral to mesonephric ducts . (2)

Malformations are believed to result from 1 or more of the following situations –

1. Incomplete development of one paramesonephric duct .
2. Failure of part of paramesonephric duct on one or both sides to develop .
3. Improper fusion of paramesonephric ducts .
4. Absent or incomplete canalization of vaginal plate .

- Incidence of mullerian anomalies varies between 3 & 4 % .

**AIMS & OBJECTIVES**

- AIM :The present study aims to determine the pregnancy outcome in mullerian anomalies .
- OBJECTIVE: To estimate the maternal & perinatal morbidity in cases of mullerian anomalies.

**MATERIALS & METHODS**

- This is a prospective observational study conducted in the department of Obstetrics & Gynecology at Guntur General Hospital, a tertiary centre over a period of 3 months .
- Sample size – 10 .

**RESULTS**

A total of 10 cases of mullerian anomalies with pregnancy were studied , of which

1. Bicornuate uterus – 50 %
2. Septate uterus – 30 %
3. Uterus didelphus – 10 %
4. Unicornuate uterus – 10 %

So , the most common anomaly of this study is bicornuate uterus .

- According to age wise distribution , 80 % were in 20 to 30 yrs age group , 20 % in < 20 yrs of age .
- 60 % of the anomalies were diagnosed in gravida 2 & 3 , 20 % in primi , 20 % in multigravidas .
- History of 1 previous abortion is seen in 20 % cases & 10 % had >= 3 abortions .
- Only 10 % of cases had history of dysmenorrhea .

**Outcome of Pregnancy:**

- Preterm delivery – 20 %
- Malpresentation – 30 % ( most common – breech )
- Failed induction – 30 %
- Miscarriage – 20 %
- Ectopic pregnancy – 10 %
- Mode of delivery – vaginal in 10 % , LSCS in 90 % as most of the cases under study were diagnosed incidentally during LSCS .Fetal Outcome- 30 % Of the neonates are of low birth weight , only 1 case had CTEV .
- Of the total 10 cases , 70 % were diagnosed incidentally , 30 % were diagnosed prior as a part of infertility workup by HSG, in 1 case , by MRI in other 2 cases .

**PROCEDURE:**

For all the cases , the following history is noted

- Name
- Age
- Marital life
- Obstetric formula
- Past , present obstetric history
- Menstrual history
- History of any chronic pelvic pain , infertility workup
- All mullerian anomalies were classified according to ASRM MAC 2021 classification Patients were followed for any obstetric complication like miscarriage , preterm delivery , FGR , malpresentation , need for cesarean section , PPH , retained placenta , need for blood transfusion . Neonatal outcome is followed for any low birth weight , low apgar , neonatal abnormalities . Ultrasound for renal anomalies was done & found normal in all the cases .
- Mullerian anomalies are associated with increased preterm deliveries , low birth weight , recurrent miscarriages . Asymptomatic course , invasive nature of HSG , lack of MRI at many institutes lead to low rate of diagnosis of mullerian anomalies

**INTRODUCTION:**

- Incidence of mullerian anomalies varies between 3 & 4 % .
- Incidence is found to be high in women suffering from recurrent miscarriage or preterm deliveries – 5 to 20 % .<sup>(4)</sup>
- The first classification to be widely recognised was that of Buttram & Gibbon's in 1979 , which was later revised & modified by AFS<sup>(5)</sup>
- Other classifications include
- VCUAM classification by oppelt<sup>(6)</sup>
- Acein & acein classification<sup>(7)</sup>
- ESHRE – ESGE classification<sup>(8)</sup>
- The ASRM MAC 2021 classifies mullerian anomalies into 9 categories

1. Mullerian agenesis .
2. Cervical agenesis .
3. Unicornuate uterus .
4. Uterus didelphys .
5. Bicornuate uterus .
6. Septate uterus .
7. Longitudinal vaginal setum .
8. Transverse vaginal septum .
9. Complex anomalies .{9}

Obstetric complications with mullerian anomalies include

- midtrimester miscarriage – which may be recurrent
- rudimentary horn pregnancy
- cervical incompetence
- increased incidence of malpresentation
- Preterm labor
- Foetal growth restriction
- Prolonged labor
- Obstructed labor
- Increased cesarean delivery
- Retained placenta PPH
- PPH

**AIMS & OBJECTIVES**

**AIM :** The present study aims to determine the pregnancy outcome in mullerian anomalies .

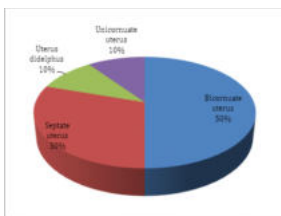
**OBJECTIVE :** To estimate the maternal & perinatal morbidity in cases of mullerian anomalies .

**MATERIALS & METHODS**

- This is a prospective observational study conducted in the department of Obstetrics & Gynecology at Guntur General Hospital , a tertiary centre over a period of 3 months .
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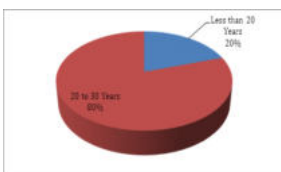
**RESULTS**

**INCIDENCE OF INDIVIDUAL UTERINE ANOMALIES IN the current study of 10 cases:**

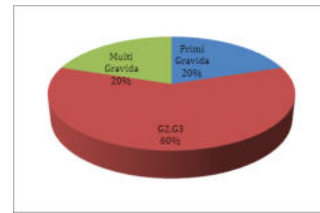


- So , the most common anomaly of this study is bicornuate uterus .

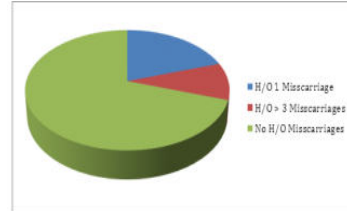
**AGE DISTRIBUTION IN THE CURRENT STUDY:**



**INCIDENCE OF UTERINE ANOMALIES IN PRIMI,G2,G3,MULTIGRAVIDA:**



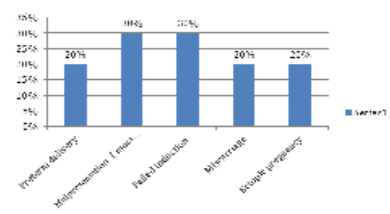
**ASSOCIATION OF MISSCARRIAGES TO UTERINE ANOMOLIES:**



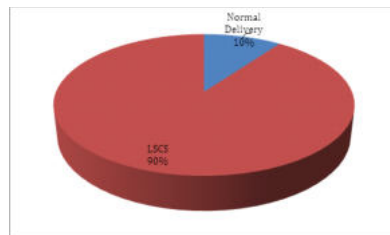
**MENSTRUAL HISTORY**

- Only 10 % of cases had history of dysmenorrhea .

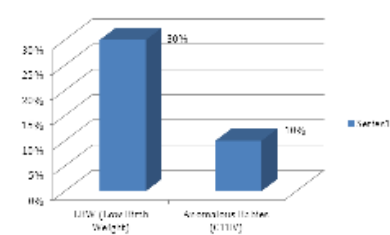
**OUTCOME OF PRESENT PREGNANCY IN UTERINE ANOMALIES:**



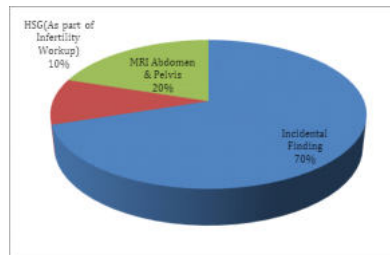
**MODE OF DELIVERY:-**



**NEONATAL OUTCOME:**



**DIAGNOSTIC METHODS:**



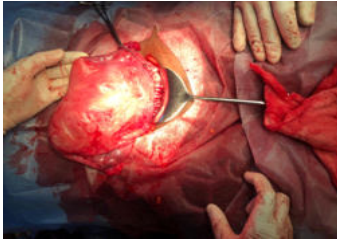
**CONCLUSION**

- Mullerian anomalies are associated with increased preterm deliveries, low birth weight , recurrent miscarriages . Asymptomatic course , invasive nature of

HSG , lack of MRI at many institutes lead to low rate of diagnosis of mullerian anomalies .

- This study establishes that mullerian anomalies are often associated with increased risk of miscarriage , ectopic pregnancy , preterm delivery , malpresentation , lowbirth weight , increased cesarean section rate but due to small sample size , rarity of disease , statistically significant relationship couldnot be established .

### UNICORNUATE WITH NON COMMUNICATING RUDIMENTARY HORN



### UTERINE DIDELPHUS



### BICORNUATE UTERUS



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